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REMARKS

This paper is responsive to a non-final Office Action dated January 8, 2004. Claims 1, 5-25, 27-33, 36, 37, and 39 were examined. Claims 5, 6, 7, 10, 12, 21, 30, 31, and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,141,239 to Turner in view of U.S. Patent No. 6,728,243 to Jason. Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Turner in view of Jason and further in view of U.S. Patent No. 6,067,300 to Baumert. Claims 8 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Turner in view of U.S. Patent No. 5,566,182 to Gantner. Claims 14, 15, 16, 18, 19, 22, 23, 25, 27, 28, and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Turner in view of U.S. Pat. No. 6,404,756 to Whitehill and further in view of U.S. Pat. No. 6,304,578 to Fluss. Claims 32, 36, and 39 stand rejected as being unpatentable over Turner in view of Whitehill, Jason, and Baumert. Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Turner in view of Whitehill, in further view of U.S. Patent No. 6,212,194 to Hsieh.

By way of the present amendment, claims 5, 9, 16, 19, 21, 25 and 29-33 and 35-36 have been canceled. Claims 6-13 were amended to depend from claim 8. Claim 27 was amended to depend from claim 22.

Applicants respectfully submit that claim 8, which has been amended to include the limitations of claim 9, distinguishes over the references of record. The Office Action relies on the synchronization channel of Gantner but admits that Gantner fails to teach a synchronization operation that includes at least one of a lock operation, an atomic read-modify-write operation, and a fetch-and-increment operation. The Office action states that such synchronization operations are well known in the art and it would be obvious for the synchronization channel of Gantner to utilize such an operation. Applicants respectfully disagree and point out the synchronization channel in Gantner is associated with ISDN and submit that the claimed synchronization operations are not obvious to use on the synchronization channel in Ganter. Absent a reference teaching that such synchronization operations would be utilized on the synchronization channel taught by Gantner, applicants submit that claim 8, and all claims dependent thereon, distinguish over Turner in view of Ganter.

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With regards to claim 14 applicants respectfully submit that Turner, Whitehall, and Fluss, alone, or in combination, fail to teach or suggest that during node initialization, a node coupled to the output port listens to grant packets and uses the unique identifier as its node identifier in subsequent transactions over the data network. The Office action states that the references of record do "not expressly disclose unique identifier but that it would be obvious that the sending and receiving nodes would have unique identifiers." Applicants respectfully submit that the claim limitation is different from the recitation in the Office action and that Turner, Whitehall, and Fluss fail to teach that during node initialization, a node coupled to the output port listens to grant packets and uses the unique identifier as its node identifier in subsequent transactions over the data network. Accordingly, applicants respectfully submit that claim 14 and all claims dependent thereon distinguish over Turner, Whitehall, and Fluss, alone, or in combination.

Claim 15 recites that the grant indication is provided at a fixed time in each frame and that the grant indication is used by the nodes of the network to synchronize to the frame. The Office action relies on Whitehill, who teaches setting time delays randomly in RTS messages, at col. 8, lines 21-42, to reduce the chances of collision. Applicants respectfully submit that Whitehill fails to teach a grant indication being sent at a fixed time in each frame or that the grant indication is used by the network nodes to synchronize to the frame. Accordingly, applicants submit that claim 15 distinguishes over Turner, Whitehall, and Fluss, alone, or in combination.

Claim 18 recites that the request indication, the grant indication and an acknowledge indication are always sent at different times over the low latency channel, thereby avoiding collisions between the request indication, the grant indication and the acknowledge indication. The Office action relies on Whitehill at col. 8 lines 42-53, which teaches inserting a random delay to reduce the chance of collision when sending an RTS message. However, randomization does not ensure that collisions don't occur but reduces the chances of collision. The claim recites always sending the request, the grant and the acknowledge at different times over the low latency channel. That is not taught or suggested in Whitehill or the other references of record. Accordingly, applicants submit that claim 18 is patentable over Turner, Whitehall, and Fluss, alone, or in combination.

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Claim 22 has been amended to incorporate limitations from claim 29 that recite transmitting smaller sized data packets across the low latency channel with limited scheduling; and transmitting highly scheduled large sized data packets across the high bandwidth channel. The Office action rejects claim 29 stating that Fuss discloses sending small packets with higher priority. Applicants respectfully point out that the claim recites sending smaller sized data packets across the low latency channel with limited scheduling, which is not addressed in the references cited by the Office action. As pointed out the specification on page 8, lines 12-20 that limited scheduling is utilized because an efficient channel transmitting low latency packets requires quick scheduling decisions. Additionally, low latency packets are typically smaller-sized packets that do not cause long lasting blockages. The transmission error rate, therefore, may be of less concern for low-latency channel because an error affects a relatively short data transfer. Therefore, retransmission of a packet that had a transmission error has an acceptable overhead. Applicants respectfully submit that claim 22, and all claims dependent thereon, distinguish over Turner, Whitehall, and Fluss, alone, or in combination.

In view of the above amendments and remarks, all pending claims are believed to be in condition for allowance and a Notice of Allowance to that effect is respectfully solicited. Nonetheless, if any issues remain that could be more efficiently handled by telephone, the Examiner is requested to call the undersigned at the number listed below.

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